SANTA CRUZ BIOTECHNOLOGY, INC.

TLR9 (D-7): sc-518075

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Toll-like Receptors (TLR) are a family of human receptors that share homology with the *Drosophila* Toll Receptors, which are involved in mediating dorsoventral polarization in developing *Drosophila* embryos and participate in host immunity. The TLR family members are characterized by a highly conserved Toll homology (TH) domain, which is essential for Toll-induced signal transductions. TLRs are type I transmembrane receptors that contain an extracellular domain consisting of several leucine-rich regions and a single cytoplasmic Toll/IL-1R like domain. Three TLR family members, TLR7, TLR8 and TLR9, belong to a subfamily of TLRs which are differentially expressed. TLR7 is expressed in lung, placenta and spleen. TLR8 is expressed in lung and peripheral blood v, and TLR9 is predominantly expressed in spleen, lymph nodes, bone marrow and peripheral blood leukocytes. TLR7, TLR8 and TLR9 stimulate the NFκB signaling pathway, suggesting that they play a role in the immune response.

REFERENCES

1. Gay, N.J. and Keith, F.J. 1991. *Drosophila* Toll and IL-1 receptor. Nature 351: 355-356.
2. Rock, F.L., Hardiman, G., Timans, J.C., Kastelein, R.A. and Bazan, J.F. 1998. A family of human receptors structurally related to *Drosophila* Toll. Proc. Natl. Acad. Sci. USA 95: 588-593.
3. Brightbill, H.D., Libraty, D.H., Krutzik, S.R., Yang, R.B., Belisle, J.T., Bleharski, J.R., Maitland, M., Norgard, M.V., Plevy, S.E., Smale, S.T., Brennan, P.J., Bloom, B.R., Godowski, P.J. and Modlin, R.L. 1999. Host defense mechanisms triggered by microbial lipoproteins through Toll-like receptors. Science 285: 732-736.
4. Du, X., Poltorak, A., Wei, Y. and Beutler, B. 2000. Three novel mammalian Toll-like receptors: gene structure, expression, and evolution. Eur. Cytokine Netw. 11: 362-371.
5. Chuang, T.H. and Ulevitch, R.J. 2000. Cloning and characterization of a subfamily of human Toll-like receptors: hTLR7, hTLR8, hTLR9. Eur. Cytokine Netw. 11: 372-378.

CHROMOSOMAL LOCATION

Genetic locus: TLR9 (human) mapping to 3p21.2.

SOURCE

TLR9 (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 244-268 within an extracellular domain of TLR9 of human origin.

PRODUCT

Each vial contains 200 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TLR9 (D-7) is recommended for detection of TLR9 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

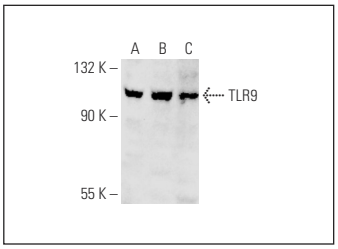
Suitable for use as control antibody for TLR9 siRNA (h): sc-40270, TLR9 shRNA Plasmid (h): sc-40270-SH AND TLR9 shRNA (h) Lentiviral Particles: sc-40270-V.

Molecular Weight of TLR9: 113 kDa.

Molecular Weight of glycosylated TLR9: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SNU-16 whole cell lysate.

DATA



TLR9 (D-7): sc-518075. Western blot analysis of TLR9 expression in SNU-16 (**A**), HeLa (**B**) and WEHI-231 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Guney Eskiler, G. and Deveci Özkan, A. 2021. The relationship between the efficacy of talazoparib and the functional Toll-like receptors 3 and 9 in triple negative breast cancer. Mol. Immunol. 141: 280-286.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.